Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-3. (canceled)

4. (previously presented) A method for inspecting channel pipes, wherein hemispherical or fully spherical digital images recorded at specific locations in the pipe are calculated and perspective images enabling virtual swiveling are produced, the method comprising:

taking a given known pipe geometry of an imaged pipe, an intermediate image is calculated and represented from the intermediate image data taken at one location for a random neighboring location of a desired fictive camera position;

projecting a recorded image computationally onto the known pipe geometry; and

calculating a one-point perspective image data resulting therefrom for the neighboring location.

5. (previously presented) The method according to claim 4, wherein calculating at each image point of a 2D-fisheye image P' (Xf, Yf) with known imaging function, the angle of incidence (α, θ) of the spherical coordinates, and from the calculation a corresponding image point in 3D space P (Xr, Yr, Zr) on the pipe surface is represented.

6. (previously presented) The method according to claim 4, wherein calculating from the desired fictive camera position and its viewing angle in space, an image point located in a desired section of an image plane, and taking from image point coordinates (Xb, Yb) of the image plane and assuming a projection center at a distance F from the image plane B, calculating corresponding image point coordinates (Xr, Yr, Zr) on the inner surface of the known pipe geometry and corresponding image point coordinates (Xf, Yf) of a

fisheye image, so that the color and brightness value of an image point on image plane B with P" (Xb, Yb) = P (Xf, Yf) is obtained.

7. (new) A method for inspecting a pipe having a known geometry comprising:

positioning a camera within the pipe;

taking a series of discreet images having associated optical centers of exposure with the camera at spaced locations along an axis of the pipe;

utilizing the known geometry of the pipe and the discreet images, creating fictive images for sections of the pipe which are between the spaced locations and outside the optical centers of exposure; and

producing a virtual model of the pipe utilizing the series of discreet images and the fictive images.

8. (new) The method of claim 7, wherein taking the series of discreet images constitutes taking hemispherical or fully spherical digital images within the pipe at the spaced locations.

9. (new) The method of claim 8, further comprising: taking the series of discreet images with a fisheye lens.

10. (new) The method of claim 7, further comprising: inspecting the pipe by simulating a continuous, axial movement through the virtual model of the pipe.

11. (new) The method of claim 7, further comprising: projecting both the series of discreet images and the fictive images onto an inner surface of an imaginary pipe having the known geometry to create the virtual model.

12. (new) The method of claim 7, further comprising: for each of the discreet images, calculating an angle of incidence and a corresponding image point in 3D-space.

13. (new) The method of claim 12, further comprising: building a 3D-scene for each of the spaced locations.

14. (new) The method of claim 13, further comprising: producing two-dimensional, perspective views, enabling swiveling, tilting, rotating and magnifying of the views.

15. (new) The method of claim 7, wherein, in taking the series of discreet images, making forwardly directed exposures and rearwardly directed exposures within the pipe.